

9/28/42 Engineering

U. S. DEPARTMENT OF COMMERCE

CIVIL AERONAUTICS JOURNAL



ISSUED MONTHLY BY THE CIVIL
AERONAUTICS ADMINISTRATION

VOLUME 3

WASHINGTON, AUGUST 15, 1942

NUMBER 12

Mechanics Training To Be Available for Civilians

The President late last month signed a bill amending the Civilian Pilot Training Act, to provide for the training of civilian aircraft mechanics.

The Civilian Pilot Training Service will direct the program which will utilize instructional and shop facilities of the Nation's 55 approved mechanic schools and over 200 approved repair stations, and possibly those of engineering colleges and vocational schools.

Introduced in the House by the Hon. Jennings Randolph, of West Virginia, and sponsored in the Senate by the Hon. Patrick McCarran, of Nevada, the amendment had the approval of the War and Navy Departments before being reported favorably to the Senate by that body's Committee on Commerce. The House Committee on Interstate and Foreign Commerce, in reporting the bill to that body, had stated: "The training under this program will not only create a valuable reservoir of men for the mechanical service in our civil and military air services, but it will also provide an economic asset to the Nation, as mechanics so trained can readily adapt themselves to many mechanical lines of work requiring skill and precision."

Following is the wording of the amendment: "Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the first sentence of section 2 of the Civilian Pilot Training Act of 1939 is amended to read as

CAA Army-Navy Program Is Well Under Way

A midsummer recapitulation of the accelerated civilian pilot training program, which for the fiscal year 1943 has been directly coordinated with the requirements of the War and Navy departments, reveals that the training schedule is well under way with 12,624 trainees signed up for the first session, which started the first of July. The breakdown of the first session enrollment follows:

Elementary	9,029
Secondary	2,497
Cross-country	303
Link instrument	75
Instructor	610
Liaison	110
Total	12,624

While the program for the year calls for training 33,350 pilots, only 15,599 of these will be trained in the first session. Of the year's total, 13,350 will be trained for the Army and 20,000 for the Navy.

Sixteen men from the Washington office and regional offices of the C. A. A. are now at the Naval Training Station, Pensacola, Fla., studying naval aviation methods and procedure in connection with the program. A similar "clinic" is held by the Army for C. A. A. inspectors and flight supervisors at Randolph Field and 16 men, 2 from each region and 2 from Washington, recently finished courses there.

follows: "The Civil Aeronautics Authority is authorized, within the limits of available appropriations made by Congress, to train civilian pilots and technicians and mechanics or to conduct programs for such training, including studies and researches as to the most desirable qualifications for aircraft pilots and technicians and mechanics."

Rigid Enforcement Of Rules Promised By CAA and CAB

That the war-time restriction and regulation of flying will continue to be diligently enforced is borne out by recent pronouncements and actions of the Civil Aeronautics Administration and the Civil Aeronautics Board.

Charles I. Stanton, Administrator of Civil Aeronautics, in announcing that the Dawn Cotton Dusting Corporation of Leland, Miss., had been permanently enjoined by the Federal court at Vicksburg, Miss., from violating the Civil Air Regulations, stated "We are at war and the nation has a first mortgage on every plane and every pilot. We cannot permit violations of safety rules to endanger these priceless assets."

War Effort Comes First

In releasing a safety bulletin¹ warning pilots not to fly over danger areas, Jerome Lederer, Director of the Safety Bureau of the Board, declared "The present rules have been promulgated to preserve all possible freedom of the skies consistent with winning the war. Winning the war is the first consideration and unless they are obeyed more severe restrictions will be adopted. It thus becomes the duty of every pilot to see that neither he nor his brother pilot jeopardizes the flying freedom which remains."

Concurrent with the action against the crop dusters, the C. A. A. impounded a plane belonging to Andrew D. Drumm, Jr., of Fallon, Nev., and filed charges against Drumm on six counts of violation, fines for which total \$11,000. Drumm had flown without a pilot's

(See Rules, page 155)

AUGUST 15, 1942

474814-42

153



ISSUED MONTHLY BY THE CIVIL
AERONAUTICS ADMINISTRATION

VOL. 3 AUGUST 15, 1942 No. 12

Published with the approval of the
Director of the Bureau of the Budget

Issued on the 15th of each month. Subscription
\$0.50 (foreign \$0.75) per year. Single
copies 5 cents. Sold by the Superintendent of
Documents, U. S. Government Printing Office,
Washington, D. C.

CONTENTS

	Page
Mechanics training to be available for civilians	153
C. A. A. Army-Navy program well under way.	153
Nation's aviation assets grow through civilian pilot-training program	155
Weather Bureau sets pilots aright	158
C. P. T. graduates honor alma mater	155
Rigid enforcement of rules promised by C. A. A. and C. A. B.	153
Landing accidents occur most during dual instruction	154
New type approvals	154
Aeronautical legislation	157
New aeronautical publication	157
Designation of medical examiners	157

AIR SAFETY

June accidents drop; Bullets won't condone flight in danger zone; Individual accident reports	156
---	-----

AIR TRANSPORTATION

Airport Management Forum	154
Board to participate in cooperative survey	155
Board decides against Panagra profit recapture; TWA St. Louis-Detroit route amended for mail	158

OFFICIAL ACTIONS

Orders, regulations and status of Air Regulations	159
---	-----



MANUALS FOR SALE

Two of the Civil Aeronautics Manuals are now on sale by the Superintendent of Documents, GPO, at 50 cents per copy each. They are: Manuals 04, "Airplane Airworthiness," and 18, "Maintenance, Repair and Alteration of Certified Aircraft, and of Aircraft Engines, Propellers, and Instruments."

Airport Management Forum

To Airport Managers:

In answer to requests from airport managers who believed that the Journal's Airport Management Forum should be conducted on a questionnaire basis, the Journal lists below three questions which it would like answered for the Forum. Address replies to The Civil Aeronautics Journal, Civil Aeronautics Administration, Washington, D. C.

1. Is airport maintenance rightfully the responsibility of the municipal government?
2. What maintenance problems have you solved, with regard to buildings, field or lighting?
3. Which do you believe the most adequate, contact or boundary lights?

NEW TYPE APPROVALS

(Approval numbers and dates of assignment in parentheses)

Type Certificates

Engines

Aviation Corporation, Lycoming O-290 and O-290A, 4 cyl. horizontal opposed air cooled, 125 h. p. at 2,450 r. p. m. at sea level pressure altitude.¹ Model O-290 provides for optional use of aircraft generator, starter, fuel and vacuum pumps at additional weights of 16, 18, 4, and 2 lbs., respectively, and model O-290A provides for use of Delco-Remy electric generator and starter, A. C. fuel pump and Pesco vacuum pump at additional weights of 10, 16, 3, and 5 lbs., respectively. (Type Certificate No. 229, 7-27-42.)

¹ Weight (dry) 244 lbs. and 277 lbs., respectively.

Propellers

U. S. Propellers, Inc.; 76FGS, 78FGS, 80FGS, and 82FGS; wood; diameter: 6 ft. 4 in., 6 ft. 6 in., 6 ft. 8 in., and 6 ft. 10 in.; respectively; 5 ft. 4 in. to 4 ft. 6 in. pitch; 115 h. p., 2,200 r. p. m. (Type Certificate No. 787, 6-30-42.)

New Models Added To Old Type Approvals

(Approval numbers and dates of approval of new models in parentheses)

Engines

Aviation Corp., Lycoming O-235A, 4 cyl. horizontal opposed air cooled, 100 h. p. at 2,550 r. p. m. at sea level pressure altitude.² Provides for use of Delco-Remy electric generator and starter, A. C. fuel pump, and Pesco vacuum pump at additional weights of 10, 16, 3, and 5 lbs., respectively. (Type Certificate No. 223, 7-3-42.)

² Weight (dry) 242 lbs.

Appliances

Cleveland, low pressure wheels, model 6: 60 DMB, 6.00-6. Approved static load per wheel 1,000 lbs. (Type Certificate No. 134, 7-14-42.)

Landing Accidents Occur Most During Dual Instruction

A report entitled "Study Of Simulated Forced Landing Accidents, 1941" recently issued by the Safety Bureau of the Civil Aeronautics Board, reveals that during the calendar year 1941, 133 simulated forced landing accidents in nonair carrier flying were reported. Of these, 118 or approximately 90 percent occurred in instructional flying, predominately dual. The number of student pilots in 1941 increased approximately 53 percent over those in 1940, and it is reasonable to assume that the amount of instructional flying increased in like proportion. For this same period, however, the number of simulated forced landing accidents in instructional flying increased approximately 190 percent.

From the above figures it would appear that measures adopted during the calendar year 1940 to increase the safety of this training maneuver had not accomplished the desired results. Nevertheless, it is significant that there has been a definite reduction in the number of such accidents resulting in serious or fatal injury. Only 10.2 percent of the simulated forced landing accidents in 1941 involved fatal or serious injury, compared with 24.4 percent in the previous year. Similarly, the percentage of aircraft washed out and receiving major damage was reduced from 92.7 to 75.4 percent.

Typical examples of how collision accidents occur in simulated forced landing practice: In the pull-up after a simulated forced landing, the undercarriage caught on a high tension wire causing an aircraft to nose over; an aircraft struck a wire fence and nosed over on its back; during a low approach, the left wheel, inadvertently contacted the ground with sufficient force to shear it off; and, in another, the landing gear and wing tip struck the ground.

Letting down too low before obstructions and stalling the aircraft in an effort to clear or avoid them proved the most serious mistake and resulted in 4 fatal accidents, 6 serious ones, and the wash-out or near wash-out of the 26 aircraft involved.

Machine Oil Salvaged

At Curtiss airplane plants reclaiming stills have been put into operation to restore the usefulness of thousands of gallons of the oils used on cutting and machining tools. Used lubricating oils from the engine test cells at the plants of the Wright Aeronautical Corporation are recovered by similar processes.

CPT Graduates Honor Alma Mater

That Civilian Pilot Training Service graduates are proving their wings in the Nation's war effort was brought out by a recent story out of the Far East.

A former Civilian Pilot Training student was co-pilot of a flying fortress which was riddled so extensively in the course of a raid on Japanese installations that the crew had to bail out. The former student, Lt. Herbert E. Wunderlich, 460 Horton Highway, Garden City, N. Y., remained with the bomber's commander to bring the plane down behind enemy lines, where the two destroyed it and then slipped back into friendly territory.

The tale of Wunderlich's forced landing was recounted by Charles I. Stanton, Administrator of Civil Aeronautics, in a letter to the Hon. James M. Mead, Senator from New York. Mr. Stanton's letter, which was read into the Congressional Record, also pointed out that Wunderlich took his ground training at the New York State Institute of Applied Agriculture and his flight instruction from Braman Johnson Flying Service, Inc.

RULES

(Cont. from page 153)

certificate, flight clearance, airworthiness certificate, flight plan, identification card or operations record and had declared that the C. A. A. should know better than to interfere with him.

Crop Duster Careless

Action against the crop-dusting concern was begun when three of its pilots were killed in a period of 26 days. Although C. A. A. regulations require a commercial certificate for crop dusting, two of the pilots held only student licenses. The complaint initiated by the C. A. A. charged that the firm used uncertificated planes on the Federal airways and that none was in airworthy condition.

¹ A reprint of the Safety Bulletin, entitled "Don't Get Shot Down," appears on p. 156.

Million Mile Months Marked

U. S. Army Air Forces transport planes have flown a total of 5,000,000 miles during the last 5 months to speed equipment and personnel to strategic points in the Australian operational area. Transporting ammunition and equipment to front-line outposts, the planes return to their bases bringing wounded men and plane engines or other equipment in need of repairs. Some of the planes thus used were once in service on the air lines of the United States.

Nation's Aviation Assets Grow Through CPT Program

While direct results of the C. A. A.'s pilot training program are to be found in the achievements of young airmen all over the world, indirect results are appearing at hundreds of colleges and universities in the form of college-owned airports, new aeronautical engineering schools and buildings, college airplanes, wind tunnels, hangars, and a growing list of air-minded faculty members.

A check of reports from institutions throughout the country reveals the following information: Last year's program produced the example of Western Union College at LeMars, Iowa, an institution of 400 students. The college promoted a \$20,000 airport for use of civilian pilot trainees. This year, as one item in the survey, Grove City, (Pa.) College has a new airport, put in by the school's flight contractor despite the fact that he already has a fine airport and facilities at his home base 20 miles away.

College Airports

At Dickinson, N. Dak., a bond issue of \$15,000 for construction of an airport passed 1,100 to 68 early this year, and the Dickinson State Teacher's College was active in the campaign. The University of the South, Sewanee, Tenn., started its own airport for use by its students. This local initiative prompted the Tennessee Board of Aeronautics to appropriate \$3,500 from its gasoline-tax funds to help along the project.

The city of Estherville, Iowa, has 6,000 population, and the Estherville Junior College but it has a civilian pilot training contract and an enthusiastic group of alumni, students, and faculty members, all of whom helped in a recent vote on a \$100,000 bond issue for airport development. The town purchased a half section of land along the main highway and started negotiations for 80 acres adjacent.

New Equipment

In April Miami University, Oxford, Ohio, purchased an airport site about 1 mile from the campus, and it will be available in a few weeks. The administration of the city of Nampa, Idaho, wholeheartedly interested in continuance of the CPT program, has begun construction of facilities for continuing the program. Dixie Junior College, at St. George, has negotiated a contract with the city for the college to operate the St. George airport. At the same time, the college will build an additional six hangars and auxiliary runways at a nearby location.

Laboratory equipment and classroom instruction equipment is piling up at the schools with pilot training programs. At the University of Wyoming, Laramie, a scale model of a training plane, one-fifth actual size, has been

obtained. The University of Dubuque, Iowa, is building an aeronautics laboratory and classroom large enough for all classes and to house the classroom airplane, engines, charts, and other facilities. The University of Idaho, Moscow, is building a new Mechanical Engineering building, with space assigned to civilian pilot training classes.

Drake University, Des Moines, Iowa, has a completely airworthy training plane set up in its aeronautics laboratory for instruction purposes. In conjunction with the CPT program, the Jones County College at Ellisville, Miss., has put in an aircraft sheet metal and riveting shop. When the Navy took over Port Columbus (Ohio), Ohio State University built a new field. At Tucson, Ariz., and Sioux City, S. Dak., when the Army took over the municipal ports the cities developed additional ports for trainees. And four new ports resulted when the city of St. Paul, the Minnesota State Aeronautical Society, and the University of Minnesota got together with flight operators.

Board To Participate In Cooperative Survey

The Civil Aeronautics Board recently announced that in cooperation with the Division of Medical Sciences of the National Research Council and the Civil Aeronautics Administration, its Safety Bureau would undertake an organized attack on factors which cause injuries to pilots and passengers. The purpose of this study will be to reduce the severity of such injuries and to eliminate them where possible.

The Board's announcement stated: "Much progress has been made in increased safety in aviation during the past years, through the development and improvement in aircraft engineering, airway aids, airports, training and safety regulation. However, the dominant effort in the promotion of safety up to this time has been related to the avoidance of accidents. Every effort toward that end will continue to be constantly explored. Despite these efforts it is not possible to eliminate completely the occurrence of accidents. Therefore, the Board feels that consideration should be given to the immediate causes of fatalities and injuries with a view toward affording occupants of aircraft greater protection in the event of an accident."

— Keep 'Em Flying —



June Accidents Drop

Ten fatal accidents were reported to the Safety Bureau of the Civil Aeronautics Board for the month of June 1942. All of these accidents occurred in nonair carrier flying.

Spins and stalls were the worst offenders accounting for six of the fatal accidents. The remaining four accidents were collision with objects other than aircraft.

A table comparing the fatal accidents in May and June 1941 and 1942 follows:

	Non-air carrier	Air carrier		Total
		Domestic	Foreign	
June 1942..	10	—	—	10
June 1941..	22	—	—	22
May 1942..	14	2	—	16
May 1941..	29	—	—	29

¹ One report was received after the release of information on May fatal accidents.

Bullets Won't Condone Flight In Danger Zone

Following is the text of a bulletin issued by the Safety Bureau of the Civil Aeronautics Board:

"Don't Get Shot Down!"

"In these days of war, failure to read the airport bulletin board daily may prove to be fatal. New danger areas are being established from time to time and these areas are likely to be protected by anti-aircraft batteries and machine guns. The orders to the gun crews are to shoot down any civil aircraft flying over those areas, and these orders are likely to be carried out with dispatch. There has already been a case in which a pilot did not read the airport bulletin board notice telling of a danger area. He carried sightseeing passengers over this area, was shot at, and one of his passengers seriously wounded.¹

"Reading the bulletin boards for these notices does not mean looking at them once a week, but before each flight the pilot should make sure that no notice has been added which he had not seen. Never lose sight of the fact that we are at war and our armed forces are not fooling when they set out to protect a defense area. They mean business!"

¹ A reprint of the report on this accident appears on this page.

INDIVIDUAL ACCIDENT REPORTS

Plane Strikes Wires During Landing Practice

Earl Clayton Walters and Edith Anna Anderegg were fatally injured in an accident which occurred on March 14, 1942, approximately 6 miles southeast of Columbus, Ohio. Walters held a commercial pilot certificate with a rating to fly single-engine land airplanes of 80 h. p. or less, and a flight instructor rating. His estimated flying time was 1,500 hours. Miss Anderegg was a certificated student pilot with about 23 hours of solo flying time. The aircraft, a Piper J3F-65, owned by Walters, was demolished.

Instructor Walters secured clearance from Norton Field, Columbus, to make a 1-hour dual instruction flight with Student Pilot Anderegg. They took off with Walters in the front seat. Approximately one-half an hour later witnesses saw the aircraft, flying low, drop down to almost touch the ground over a succession of flat open fields. The plane descended over one field until it was below the fence tops; then, rising slowly in a gentle right turn, it was flown toward a gap in a row of 70-foot trees on the far side of a highway. There was a telephone line with two galvanized iron wires on 25-foot poles on the near side of the highway, parallel to the trees and located so that the poles did not appear in the gap. The right wing of the plane struck the wires and, dragging one wire behind, the aircraft crossed the road, passed through the gap in the trees and struck the ground just beyond. It came to rest in an inverted position and burst into flames.

Investigation disclosed that Walters was known as a conservative pilot and a careful instructor; further, that Miss Anderegg's instruction had advanced to the point where the instructor would have her make a number of simulated forced landings. The day was overcast and the telephone lines with their weathered poles and wires were scarcely visible against the background. Log books of Walters and of the aircraft and engine were believed to have been consumed by the fire which followed impact.

Probable cause.—Failure of pilot to discern and avoid telephone wires after simulated forced landing.

Contributing factors.—1. Poor visibility of telephone line against background in overcast weather.

2. Practice of carrying simulated forced landings beyond safe limits.

Bullets Stop Flight Over Restricted Area

A commercial pilot, Delbert Richardson, with a total of about 650 hours of flying time, was fired upon February 8, 1942, while flying over a defense plant in the vicinity of Alton, Ill. Delbert Henson, one of two revenue passengers, was seriously wounded, although the other passenger, Beverly Ann Keith, and the pilot were uninjured. The aircraft, a Piper, Model J5A, received major damage.

The pilot took off from Lakeside Airport, accompanied by the two passengers, on a local sightseeing flight. After take-off, the pilot turned in a northerly direction and climbed to approximately 1,100 feet. The airplane continued on this heading for a short time and then passed directly over a factory engaged in war production. The Army guards at the plant fired warning shots close to the aircraft. The pilot states that he heard what sounded like a vibration, but believed that it was caused by one of the wing inspection covers and did not realize that he was being fired upon. He made a 180-degree turn and started back. This time as the aircraft came over the defense plant property, Henson, who was sitting on the right side, was struck by a bullet which came up through the seat. Another bullet came up through the floor to the right of the pilot, who immediately throttled the engine and nosed the aircraft down, intending, at first, to make an immediate landing. When the airplane had reached an altitude variously estimated at from 20 to 75 feet, the pilot changed his mind and flew directly back to Lakeside Airport. After landing, an ambulance was called and the passenger was taken to a hospital. It was ascertained that all damage to the aircraft was caused by four bullets.

Didn't Read Notice

Investigation disclosed that the airport manager had, on December 11, 1941, posted on the airport bulletin board, a notice restricting all flying from Lakeside Airport to an area within three miles of the airport. Any flight intended to extend to a greater distance from the airport was prohibited, unless special arrangements were made with the airport manager. In addition, under date of January 1, 1942, a special notice was posted informing pilots that machine guns were being set up at this particular defense plant for the purpose of shooting down any airplanes flying over the plant. A map of the vicinity was placed on the bulletin board indicating in red those areas in the locality over which civilian flight had been prohibited by the Army Commander in the area.

Probable Cause.—Pilot's disregard of posted maps showing location of restricted areas.

(See Accidents, Page 157)

Aeronautical Legislation

Listed below are recent measures concerning aeronautics pending before, or enacted by, Congress.

Passed

- H. R. 5695—AVIATION TECHNICIANS AND MECHANICS; the bill to amend the Civilian Pilot Training Act of 1939 so as to provide for the training of civilian aviation technicians and mechanics was passed by both Houses and approved by the President.
- H. R. 7384—NAVAL AVIATION CADETS; the bill to repeal certain laws and to amend other laws relating to naval aviation cadets was passed by the House.
- H. Res. 525 (Rept. No. 2360)—AIR ACCIDENTS; the resolution to provide for further expenses of the Select Committee to Investigate Air Accidents was passed by the House.
- S. 2032—INTERDEPARTMENTAL PROCUREMENT BY CONTRACT; the bill to amend the act to authorize interdepartmental procurement by contract, upon orders placed by the War, Navy, and Treasury Departments, the Civil Aeronautics Administration, and the Maritime Commission was passed by both Houses and approved by the President.
- S. 2515—FEDERAL EXPLOSIVES ACT; the bill to amend the Federal Explosives Act by removing from the application of the act explosives or ingredients in transit upon aircraft in conformity with statutory law or rules and regulations of the Civil Aeronautics Board was passed by the Senate.
- S. 2553—FLIGHT OFFICER; the bill to create the title of flight officer in the Army Air Forces and to amend the Army Aviation Cadet Act was passed by the House.

Plastic Panes For Planes

A St. Louis manufacturer of aircraft accessories has announced that in cooperation with the Navy it has developed a new type of transparent window pane capable of withstanding the explosion of a 150-pound bomb at a distance of 8 feet. It is made of clear plastic, laminated with wire mesh.

ACCIDENTS

(Continued from page 156)

Structural Failure Cause Of Fatal Accident

Raymond Lewis Seydel was fatally injured in an accident which occurred near Blythe, Calif., on April 4, 1942. He was certificated as a student pilot and had flown approximately 2,000 hours. Seydel formerly held a transport pilot license but had done little flying since its expiration in 1934. The aircraft, a Stinson SM-8A, owned by Josephine Gange of Los Angeles, was demolished.

Seydel took off from Harvey's Airport, near Blythe, Calif., for the purpose of doing spins, as part of his flight test for a private pilot certificate. In accordance with the flight examiner's instructions, he climbed to an altitude of about 3,500 feet and then brought the nose up until the aircraft was in a near-stalling position. The plane fell off to the left in a diving turn. Partial recovery was effected at about 2,000 feet, at which point, however, the ship again fell off into a steeper diving turn. When about 180° of the turn had been

Equipment May Be Borrowed

According to a new U. S. Army Air Forces ruling, schools and museums may have on loan aeronautical equipment which has been declared obsolete or unserviceable. Vocational schools can likewise obtain such equipment for instructional purposes.

New Aeronautical Publications

Among recent Government publications dealing with the subject of aeronautics are the following:

- BASIC FIELD MANUAL 30-30; Military Intelligence, Identification of U. S. Government Aircraft; February 21, 1942. 151 pages, illustrated. Price, 25 cents. Classification number W 1.33:30-30.
- ARMY TECHNICAL MANUAL 1-232; Basic Weather For Pilot Trainees; April 22, 1942. 204 pages, illustrated. Price, 35 cents. Classification number W 1.35:1-232.
- ARMY TECHNICAL MANUAL 1-415; Airplane Inspection Guide; March 7, 1942. 104 pages. Price, 15 cents. (Supersedes TM 1-415, March 24, 1941.) Classification number W 1.35:1-415.
- BASIC FIELD MANUAL 30-38; Military Intelligence, Identification of Japanese Aircraft; March 16, 1942. 175 pages, illustrated. Price, 25 cents. (Supersedes FM 30-38, March 10, 1941.) Classification number W 1.33:30-38.
- NAVAL AVIATION PILOT; S. 2382—To provide for designation of naval aviation pilot (airship).

When ordering these publications, send remittance by postal money order, express order, coupons, or check to the Superintendent of Documents, Government Printing Office, Washington, D. C. Always give title, issuing office, or classification number when listed.

completed, the airplane struck the ground in an almost vertical position.

The behavior of the airplane, as seen from the ground, indicates that the pilot had failed to spin the plane, but instead had caused it to fall off into a diving turn. It is probable that in the attempt to effect recovery from this maneuver, severe loads were imposed upon the wing, resulting in its failure and a subsequent loss of control. Portions of wing fabric and small metal pieces of the wing, probably nose ribs, were found scattered some few hundred feet from the wreckage. Although this fabric, on examination, showed definite signs of deterioration, it was not possible to establish whether the fabric or some portion of the internal wing structure had failed first. The aircraft log book indicated that the airplane had been flown 678 hours since it was last recovered in the summer of 1936. Whether the failure of the wing was the result of abnormal loads imposed upon it, or of a weakened condition of the structure or fabric, could not be determined. The pilot was equipped with a parachute, which was not used.

Probable cause.—Structural failure of a wing.

Contributing factors.—1. Imperfect maintenance.

2. Imposition of heavy loads on the structure in recovery from a dive.

Designation of Medical Examiners

During the month of June 1942, the following named physicians were officially authorized to make physical examinations for the Civil Aeronautics Administration:

- FLORIDA—Dr. John E. Harris, Commercial Court Building, Sarasota.
- INDIANA—Dr. Howard W. Byrn, 108 West Seventh Street, Bloomington.
- KANSAS—Dr. Charles D. McKeown, 200 East First Street, Wichita.
- LOUISIANA—Dr. Alcee L. Peters, 320 Grammont Street, Monroe.
- MISSOURI—Dr. George W. Blankenship, Victor Building, Boonville.
- NEW JERSEY—Dr. John B. Boyd, 31 Oakland Street, Red Bank.
- NORTH CAROLINA—Dr. Charles E. Cloninger, Conover.
- OHIO—Dr. Hiram O. Studley, 1422 Euclid Avenue, Cleveland.
- PENNSYLVANIA—Dr. Lawrence L. Blackburn, 111 West Third Street, Greensburg.
- VIRGINIA—Dr. William H. Wood, Jr., Medical Arts Building, Charlottesville.
- ALASKA—Dr. George L. Stagg, Commercial Building, Ketchikan.

Airline Examiners

- Dr. Charles D. McKeown, 200 First Street, Wichita, Kans.
- Dr. Hiram O. Studley, 1422 Euclid Avenue, Cleveland, Ohio.
- Dr. Samuel M. Strong, 42-33 Kissena Blvd., Flushing, L. I., N. Y.

Examinations Discontinued

The following physicians are no longer making examinations for the Civil Aeronautics Administration:

- Dr. John L. Summerlin, Gainesville, Fla.
- Dr. A. Lamar Matthews, Sarasota, Fla.
- Dr. Dillon Geiger, Bloomington, Ind.
- Dr. Harold W. Palmer, Wichita, Kans.
- Dr. Clifton B. Flinn, Monroe, La.
- Dr. A. C. van Ravenswaay, Boonville, Mo.
- Dr. Frank J. Goff, Red Bank, N. J.
- Dr. Wendell H. Peacock, Farmington, N. Mex.
- Dr. Kenneth L. Cloninger, Conover, N. C.
- Dr. Herbert B. Wright, Cleveland, Ohio.
- Dr. James Hamilton, Greensburg, Pa.
- Dr. William T. Robinson, Murfreesboro, Tenn.
- Dr. Byrd S. Leavell, Charlottesville, Va.
- Dr. H. C. Turner, Ketchikan, Alaska.

Changes in Address

The following medical examiners have changed their addresses as follows:

- Dr. Dorf Bean, Medical Arts Building, Shreveport, La.
- Dr. Samuel M. Jacobson, 15 South Liberty Street, Cumberland, Md.
- Dr. Pat Fite, Commercial National Building, Muskogee, Okla.

Sand Storms Stop Engines

Desert sand, which gets into the moving parts of airplane mechanisms and reduces the usefulness of the craft, is one of the greatest handicaps which Allied air forces have to overcome in the North African fighting. The amount which can penetrate the plane's working parts has been reduced by numerous filters and other gadgets, but flyers say it is impossible to render any plane or engine wholly sandproof.

—Keep 'Em Flying—

Weather Bureau Sets Pilots Aright

At the request of Commander F. W. Reichelderfer, Chief of the United States Weather Bureau, the C. A. A. recently carried in the Weekly Notice to Airmen a statement from the Bureau telling pilots how to obtain weather information. According to the Bureau, it prepared the statement as a safety measure because it felt that conflicting accounts of restrictions on such data had caused pilots to mistakenly lose faith in the Bureau's service.

A portion of the statement follows: "Although certain details of weather reporting are restricted because of the war, the controls still allow for full flying protection of aviation personnel and equipment. The object of these controls is to prevent the leakage of weather information to the enemy, whether within the United States or outside, and pilots must be properly identified before some questions about flying weather can be answered.

"The correct information can, and should, in all cases be obtained from a Weather Bureau official. If no Bureau office is located where the pilot happens to be, a telephone call to the office at the nearest terminal or fully staffed airport will produce enough advice upon which to base a flight to a landing area where more detailed information is available. The telephone call may require a few minutes and cost 25 cents but it may save somebody's life."

TWA St. Louis-Detroit Route Amended For Mail

The Civil Aeronautics Board has amended the certificate of Transcontinental & Western Air, Inc., on its route from St. Louis to Detroit, Mich., via the intermediate points Cincinnati, Dayton, and Toledo, Ohio, so as to permit the transportation of mail. This route, the Board stated, is to be known as No. 58.

The certificate, which was issued by the Board under the "grandfather" clause, permitted the transportation of persons and property only. Under date of May 26, 1942, the Board authorized service over the St. Louis-Cincinnati portion to be suspended temporarily because of the limited number of aircraft presently available for commercial operations, and the Board's opinion points out that mail service over this portion of the route will be deferred until the resumption of commercial operations. Service between Detroit and Cincinnati will be effective immediately.

Planes Landed All Blows

The Coral Sea fight was the first naval battle in all history in which all damage was done by aircraft.



Board Decides Against Panagra Profit Recapture

The Civil Aeronautics Board, in a tentative air mail rate opinion, recently decided not to effect the recapture of certain excess profits earned by Pan American-Grace Airways, Inc., under the mail rates prevailing over an extended period in the past. Recapture was declared to be economically unsound and contrary to the public interest but restrictions imposed by the Board were designed to insure the use of the excessive profits in the public service. The Board also proposed a large reduction in Panagra's existing mail compensation and directed the carrier to show cause why the tentative opinion and order should not be made final.

Revenue Growth

The Board fixed a base rate of 39.38 cents per mile for application after July 1, 1942, which, according to the Board's estimates, would effect a net reduction of approximately \$700,000 annually in the total cost of the mail service furnished by Panagra even though it is anticipated that there will be a 61 percent increase in revenue miles flown in 1942 over those flown in 1941. The Board found that the increasing volume of the airline's operations and the growth of passenger and express revenues, which had increased from an average of 50.46 cents per revenue mile flown in the years 1936-38 to 88.65 cents per mile during the last 6 months of 1941, have substantially reduced the carrier's need for mail revenues under the standards set for the determination of such revenues in the Civil Aeronautics Act.

The net earnings accruing to the carrier, under the new rate, according to the Board's decision, will be 12.03 cents per mail pay mile, or an average earning of 10 percent, after payment of Federal income tax, on the carrier's base investment, which was fixed at \$3,047,137. It also represents 7 percent of non-United States mail revenue or approximately 5 percent of total revenue.

American Case Cited

The Board's tentative opinion points out that Panagra, operating under a contract entered into with the Postmaster General in 1929, shows operating profits during the last 13 years of \$6,035,258, approximately one-half of which accrued

during the pendency of the rate inquiry which preceded the opinion. Over \$1,375,000 were declared to be excessive.

The Board makes note of its decision on March 12 in the American Airlines Rate Case (now being reconsidered by the Board), in which its retroactive reduction of the carrier's rates involve a refund to the Government of approximately \$4,000,000 in excessive profits and stated that it had reached its conclusion against the policy of recapture in the Panagra Rate Case "upon considerations which have been accentuated by developments affecting air transportation since the Board's former decision involving the same issue." The Board made it clear, however, that in fixing the future rate, these excess earnings would not be considered as a part of Panagra's investment on which it would receive a profit until it reached a self-sustaining basis and was paid for the carriage of mail only on a basis of compensation for such service. It also declared that such excessive earnings "should not be devoted to the personal interest of respondent's stockholders through the payment of dividends", but that a special reserve should be established to which should be credited an amount equal to the excessive earnings not already incorporated in the carrier's capital stock account.

Needs Capital

Two primary considerations were presented as influencing the Board against the recapture policy: first, the detrimental economic effect of such a policy upon the carrier during present wartime conditions; and second, the need of the carrier for ample reserves to act as a "cushion" against the exigencies of the future in which the Board said it will be called upon to perform "a task of unpredictable magnitude". "Our international air carriers * * * will face a need for capital," said the Board, "which is likely to be as sudden as it will be urgent. If they are to be able to satisfy those capital requirements they must present a reasonably sound financial condition to the investing public." To reduce the financial resources of Panagra under such circumstances "would clearly lack that justification which should accompany a policy vitally affecting air transportation."

CIVIL AERONAUTICS BOARD

OFFICIAL ACTIONS

Abstracts of Opinions, Orders, and Regulations

ORDERS

ORDER No. 1825.....July 1, 1942

Amended Order, Serial No. 1807, so as to commence suspension of commercial pilot certificate No. 28871 of Howard D. Campbell on July 10.

ORDER No. 1826.....July 3, 1942

Restricted commercial pilot certificate No. 48517 of Delbert Richardson for 6 months so as to allow respondent to pilot aircraft only while receiving instruction or making check flights accompanied by inspectors or instructors of the C. A. A., or, if properly rated therefor, while giving primary flight instruction; said restriction shall commence 10 days from date of order.

ORDER No. 1827.....July 3, 1942

Dismissed petition of Corrado Fiorentino for a waiver of the citizenship requirements of the Civil Air Regulations and from the refusal by the Administrator of Civil Aeronautics to issue an identification card. (Opinion and order.)

ORDER No. 1828.....July 4, 1942

Authorized Continental Air Lines, Inc., to temporarily suspend service on route No. 43 for the period from July 1, 1942, to July 21, 1942.

ORDER No. 1829.....July 6, 1942

Dismissed petition of Charles A. Greck for reconsideration of Order, Serial No. 1799, which temporarily suspended his commercial pilot certificate No. 169430.

ORDER No. 1830.....July 8, 1942

Suspended student pilot certificate No. S-265957 of Wm. Starr for 60 days for piloting an aircraft carrying a passenger other than a certificated instructor, in violation of the Civil Air Regulations. Said suspension shall commence 10 days from date of this order.

ORDER No. 1831.....July 7, 1942

Authorized Transcontinental & Western Air, Inc., to temporarily suspend service between Chicago, Ill., and the terminal points Newark, N. J., and New York, N. Y., on route No. 44.

ORDER No. 1832.....July 7, 1942

Directed Pan American-Grace Airways, Inc., to show cause why the Board should not make final the tentative findings and conclusions set forth and upon the basis thereof, fix, determine, and publish the fair and reasonable rates

of compensation to be paid for the transportation of mail on all routes on which it is authorized to transport mail.

ORDER No. 1833.....July 9, 1942

Exempted Northwest Airlines, Inc. from the provisions of Section 401 (a) of the Civil Aeronautics Act so as to permit the carrier to temporarily engage in air transportation with respect to persons holding priority authorizations for transportation by air and with respect to property and mail to and from Great Falls, Mont., as an intermediate point between Billings and Butte on route No. 3.

ORDER No. 1834.....July 10, 1942

Dismissed the complaint filed by the Administrator in the matter of Walter Foss Woods, holder of mechanic certificate with parachute rigger rating.

ORDER No. 1835.....July 10, 1942

Approved cancellation of an agreement—contract C. A. B. No. 165—relating to the furnishing of certain services and facilities at Des Moines, Iowa, between United Air Lines Transport Corporation and Mid-Continent Airlines, Inc.

ORDER No. 1836.....July 13, 1942

Suspended for 30 days student pilot certificate No. S-328762 of Nathan S. Sontag for operating various aircraft in various States carrying passengers other than certificated instructors, and other violations of the Civil Air Regulations.

ORDER No. 1837.....July 13, 1942

Suspended for 90 days private pilot certificate No. 29343 of Ralph M. Jones for carrying passengers for hire and other violations of the Civil Air Regulations.

ORDER No. 1838.....July 13, 1942

Suspended for 30 days student pilot certificate No. S-263865 of Julian J. Tencza for piloting an aircraft beyond the limits of the local flying area which had been specified on the clearance granted him for said flight, in violation of the Civil Air Regulations.

ORDER No. 1839.....July 13, 1942

Designated Leslie Lincoln and any person nominated by him, to take depositions prior to the commencement of the hearing in the matter of Arthur S. Davison, holder of commercial pilot certificate No. 787.

ORDER No. 1840.....July 14, 1942

Granted United Air Lines Corporation permission to serve Bellingham, Wash., an intermediate point on route No. 57, through the use of Bellingham Airport (Whatcom County Airport), beginning July 10, 1942.

ORDER No. 1841.....July 14, 1942

Rescinded order, Serial No. 1754, dated May 26, 1942, insofar as it authorizes temporary suspension of service by Eastern Air Lines, Inc., between Atlanta, Ga., and Tampa, Fla., on Route No. 40.

ORDER No. 1842.....July 15, 1942

Suspended for 60 days private pilot certificate No. 61654 of John W. Bishop for piloting an aircraft on a contact flight, on which flight he encountered weather conditions which were below the minimums prescribed by the Civil Air Regulations for contact flight, and on which flight he continued toward his original destination under instrument flight conditions when he did not possess a valid instrument rating, in violation of the Civil Air Regulations.

ORDER No. 1843.....July 15, 1942

Granted commercial pilot certificate to Howard E. Turner if he completes to the satisfaction of the Administrator a written examination and flight test, demonstrating that his aeronautical experience, ability, and judgment compensate for his physical deficiency. (Opinion and order.)

ORDER No. 1844.....July 15, 1942

Dismissed, without prejudice, the complaint filed against Herbert M. Peters, holder of commercial pilot certificate No. 3769, to reopen the case on motion of the Administrator if respondent fails to pay on or before July 24, 1942, the civil penalty of \$50 assessed against him. (Opinion and order.)

ORDER No. 1845.....July 15, 1942

Designated A. R. Livingston and any person nominated by him to take depositions prior to the commencement of the hearing in the matter of Arthur S. Davison, holder of commercial pilot certificate No. 787.

ORDER No. 1846.....July 17, 1942

Rescinded order, Serial No. 1759, dated May 26, 1942, insofar as it authorized temporary suspension of service between Washington, D. C. and Baltimore, Md., on route No. 34, by Pennsylvania-Central Airlines Corporation.

ORDER No. 1847.....July 17, 1942

Approved agreement (Contract CAB-227) relating to suspension of discounted fares by and between certain air carriers.

ORDER No. 1848.....July 16, 1942

Ordered that amendments Nos. 60-1 through 60-5 of the present reprinting of part 60 be renumbered 60-64 through 60-68, respectively, as amendments of the edition of October 4, 1940, and it is further ordered that the present reprinting of part 60, Air Traffic Rules, be designated as the edition of July 15, 1942.

ORDER No. 1849.....July 18, 1942

Amended certificate of public convenience and necessity so as to authorize Transcontinental & Western Air, Inc., to engage in air transportation with respect to persons, property and mail between the terminal point St. Louis, Mo., the intermediate points Cincinnati, Dayton, and Toledo, Ohio, and the terminal point Detroit, Mich.

ORDER No. 1850.....July 20, 1942

Temporarily exempted Pan American Airways, Inc. from the provisions of section 401 of the Civil Aeronautics Act of 1938, as amended, insofar as said provisions would otherwise require them to render air transportation service between the terminal point San Francisco, Calif., the intermediate points Honolulu, Hawaii, Midway Island, Wake Island, the Island of Guam, Manila, P. I., and Portuguese Colony of Macau, and the terminal point the British Crown Colony of Hong Kong, and for a period of 5 years from April 20, 1941, between the intermediate point Manila, P. I., and the terminal point Singapore, and the Straits Settlements.

ORDER No. 1851.....July 20, 1942

Temporarily exempted Pan American Airways, Inc. from the provisions of section 401 of the Civil Aeronautics Act of 1938, as amended, insofar as said provisions would otherwise require them to render air transportation service between San Francisco, Calif., the intermediate points Los Angeles, Calif., Honolulu, Hawaii, Canton Island, Suva, British Crown Colony of Fiji, and Noumea, New Caledonia, and the terminal point Auckland, New Zealand.

ORDER No. 1852.....July 20, 1942

Suspended for 6 months, student pilot certificate No. S-244728 of Frank W. Thompson for piloting an aircraft carrying a passenger other than a certificated instructor with the dual controls fully functioning, in violation of the Civil Air Regulations.

ORDER No. 1853.....July 20, 1942

Revoked student pilot certificate No. S-324357 of Robert S. Rogers, for piloting an aircraft over a congested area at an altitude of less than 1,000 feet in violation of the Civil Air Regulations.

ORDER No. 1854.....July 20, 1942

Dismissed complaint filed by the Administrator of Civil Aeronautics in the

matter of Raymond W. Baker, holder of commercial pilot certificate No. 297878.

ORDER No. 1855.....July 20, 1942

Amended order, Serial No. 1746, dated May 22, 1942, in the matter of Robert Poberezny.

ORDER No. 1856.....July 20, 1942

Suspended for 30 days private pilot certificate No. S-303648 of Herbert R. Noble, for piloting an airplane carrying a passenger other than a certificated instructor, and other violations of the Civil Air Regulations. (Opinion and order.)

ORDER No. 1857.....July 20, 1942

Suspended for 30 days private pilot certificate No. 25543 of Frederic K. Brunton for flying an airplane on a civil airway when said aircraft was not certificated as airworthy, and other violations of the Civil Air Regulations. (Opinion and order.)

ORDER No. 1858.....July 20, 1942

Granted International Airways, Inc., permission to intervene in the matter of temporary foreign air transportation between the United States and Europe by Pan American Airways, Inc.

ORDER No. 1859.....July 20, 1942

Approved agreement filed under section 412 (a) of the Civil Aeronautics Act by and between United Air Lines Transport Corp. and Western Air Lines, Inc., concerning arrangements for precooling of certain of Western's aircraft at Burbank, Calif.

ORDER No. 1860.....July 29, 1942

Disapproved Agreement, CAB No. 152, between Pan American Airways, Inc., Matson Navigation Co. and Inter-Island Steam Navigation Co., Ltd., relating to joint operations and agency and traffic arrangements.

ORDER No. 1861.....July 27, 1942

Granted permission to National Airlines, Inc., to intervene in the matter of temporary foreign air transportation between the United States and Europe by Pan American Airways, Inc.

ORDER No. 1862.....July 27, 1942

Assigned for oral argument proceeding in the matter of the petition of Hans Groenhoff for reconsideration of the refusal of the Administrator of Civil Aeronautics to reinstate his pilot certificate and to issue a pilot identification card.

ORDER No. 1863.....July 27, 1942

Granted American Export Airlines, Inc., approval to keep its system of accounts under section 202.2 of the Economic Regulations and of report form under section 202.1.

ORDER No. 1864.....July 29, 1942

Approved amended contract CAB-187-A in the matter of an agreement filed under section 412 (a) of the Civil Aeronautics Act by and between various aircraft carriers.

ORDER No. 1865.....July 31, 1942

Amended order, Serial No. 1720, which suspended for 6 months student pilot certificate No. 334882 held by Edward G. Gregory, so as to permit him to operate aircraft under the Civilian Pilot Training Program or under military direction during said period.

ORDER No. 1866.....July 31, 1942

Suspended for 30 days student pilot certificate No. S-432881 held by Frank J. Cain, Jr., for piloting an aircraft beyond the limits of the local flying area which had been specified on his aircraft clearance and other violations of the Civil Air Regulations.

ORDER No. 1867.....July 25, 1942

Authorized Transcontinental & Western Air, Inc., to suspend service temporarily on route No. 37 for the period from July 26, 1942, to August 4, 1942, inclusive.

ORDER No. 1868.....August 1, 1942

Further amended order, Serial No. 1660, dated April 10, 1942, so as to permit United Air Lines Transport Corporation to suspend service temporarily at Rock Springs, Wyoming, for the period from February 13, 1942, to September 15, 1942.

ORDER No. 1869.....July 30, 1942

Adopted order fixing and determining the fair and reasonable rates of compensation for the transportation of mail by aircraft, the facilities used and useful therefor, and the services connected therewith, being paid to Pan American-Grace Airways, Inc. (Opinion and order.)

ORDER No. 1870.....July 30, 1942

Denied application of American Export Airlines, Inc., for approval of the control of American Export Airlines, Inc., by American Export Lines, Inc., under section 408 of the Civil Aeronautics Act of 1938, as amended, and order divestment of control. (Opinion and order.)

REGULATIONS

AMENDMENT 01-3.....July 10, 1942

Effective July 25, 1942:

Part 01 of the Civil Air Regulations is amended as follows:

1. By striking section 01.31 and inserting in lieu thereof a new section 01.31 through 01.312 as follows:

"01.31 Removal, release and preservation of wreckage.

"01.310 Removal. (a) No aircraft or part thereof, involved in an air carrier accident or in an accident resulting in serious or fatal injury to any person, or accident known or believed to have resulted from structural failure in flight, shall be moved or disturbed, except:

"(1) When necessary for giving assistance to persons injured or trapped in the wreckage;

"(2) When necessary in the interest of public safety;

"(3) When specific permission shall have been granted by an authorized representative of the Civil Aeronautics Board, or of the Administrator of Civil Aeronautics;

"(4) When prompt movement of the aircraft is necessary to protect it from further serious damage and it is impossible to secure

immediate communication with any person authorized in subsection (3) to direct the removal.

"(b) Any movement of the aircraft, or any part thereof, under subsection (a) shall be so accomplished as to entail the minimum possible disturbance of the material concerned. Prior to such movement a record of the original position and condition of the wreckage (as complete and accurate as possible under the circumstances) shall be made unless the danger to public safety is such as to permit of no delay whatever, or unless an authorized representative of the Civil Aeronautics Board has directed otherwise.

"(c) The requirements of this section shall be applicable with respect to all accidents as described in subsection (a) hereof, which occur within the United States and with respect to all air carrier accidents without regard to where they occur.

"01.311 Release. No aircraft or part thereof, involved in an air carrier accident or in an accident resulting in serious or fatal injury to any person, or accident known or believed to have resulted from structural failure in flight, shall be released for repair, salvage, disposal, or any other purpose except upon specific permission granted by an authorized representative of the Civil Aeronautics Board.

"01.312 Preservation. An aircraft, aircraft engine, propeller, or appliance, or any part or parts thereof, involved in an accident, shall be preserved and removed to such place or places as directed by the Civil Aeronautics Board or any authorized representative thereof for purposes of safekeeping, inspection, testing or any other purpose consistent with the powers and duties granted the Civil Aeronautics Board under section 702 (a) of the Civil Aeronautics Act of 1938, as amended: Except. That the wreckage of an aircraft involved in a type of accident other than the categories described in § 01.310 need not be preserved unless specifically directed by the Civil Aeronautics Board or an authorized representative thereof."

"2. By striking section 01.32 and inserting in lieu thereof the following:

"01.32 (Unassigned)."

AMENDMENT 04-14-----June 29, 1942

Effective July 1, 1942:

Part 04 of the Civil Air Regulations is hereby amended as follows:

1. Add a new section 04.7030 to read as follows:

"04.7030 Controllability at the stall. With power off and with 75% maximum-exception-take-off power, with flaps and landing gear in any position; the airplane shall have sufficient directional and lateral control so that when the airplane is stalled, the downward pitching motion following the stall shall occur prior to any uncontrollable roll or yaw. Any such pitching motion shall not be excessive and recovery to normal flight shall be possible by normal use of the controls after the pitching motion is unmistakably developed, without excessive loss of altitude."

2. Strike section 04.706 and insert in lieu thereof the following:

"04.706 Spinning. (Not applicable to airplanes certificated in the transport category). At any permissible combination of weight and center of gravity position obtainable with all or part of the design useful load, there shall be no excessive reversal of control forces during any possible spinning up to 6 turns. It shall be possible promptly to recover to any point in the spinning described above by using the controls in a normal manner for that purpose and without exceeding either the limiting airspeed or the limit design normal acceleration for the airplane. It shall not be possible to obtain uncontrollable spins by means of any possible use of the controls: Provided, That compliance with the foregoing requirements with respect to spinning shall not be required for those airplanes:

"(a) permanently placarded 'intentional spinning prohibited'; or

"(b) demonstrated to the satisfaction of the Administrator to be characteristically incapable of spinning."

3. Strike sections 04.7060 and 04.7061.

AMENDMENT 27-8-----June 29, 1942

Effective December 7, 1941:

Part 27 of the Civil Air Regulations is amended as follows:

1. Amend section 27.22 to read as follows: "27.22 Duration. An aircraft dispatcher certificate shall be of 60 days' duration, and unless the holder is otherwise notified by the Administrator within such period, it shall continue in effect thereafter until otherwise specified by the Board, unless suspended or revoked."

2. Strike section 27.23 and insert in lieu thereof a new section as follows:

"27.23 Recent experience requirements. The holder of an aircraft dispatcher certificate shall not exercise the privileges thereunder unless, within the preceding twelve calendar months he has:

"(a) For at least three months,

"(1) Served as an aircraft dispatcher,

or

"(2) Served as first or second pilot in scheduled air carrier operation, or

"(3) Been engaged in the actual supervision of, or has been responsible for determining or certifying the competency or qualifications of aircraft dispatchers, or air carrier dispatcher systems, or

"(4) Served in any combination of the duties described in subsections (1), (2), or (3);

"(b) Demonstrated to the satisfaction of the Administrator that he is able to meet the standards currently prescribed by the Civil Air Regulations for the issuance of the certificate and rating."

3. Add a new section 27.230 to read as follows:

"27.230 Reports. The holder of an aircraft dispatcher certificate shall transmit to the Administrator, annually, during the month of January, a report for the preceding twelve month period, setting forth the amount and type of his aeronautical experience and such other pertinent data as the Administrator may require."

4. Amend section 27.24 to read as follows:

"27.24 Expired certificates; special issuance. The holder of an aircraft dispatcher certificate which has expired during the preceding twelve months may obtain a new certificate and the same rating theretofore held immediately prior to its expiration, upon application, by demonstrating to the satisfaction of the Administrator that he is able to meet the standards currently prescribed by the Civil Air Regulations for the issuance of the certificate and rating."

5. Amend the table of contents to conform to items 2 and 4 of this amendment.

6. Add to the table of contents in the proper numerical order the following:

"27.28 Revocation."
"27.29 Aircraft dispatcher identification card."

AMENDMENT 51-7-----June 29, 1942

Effective December 7, 1941:

Part 51 of the Civil Air Regulations is amended as follows:

1. Amend section 51.22 to read as follows:

"51.22 Duration. A ground instructor certificate shall be of 60 days' duration, and unless the holder is otherwise notified by the Administrator within such period, it shall continue in effect thereafter until otherwise specified by the Board, unless suspended or revoked."

2. Strike section 51.23 and insert in lieu thereof the following:

"51.23 Recent experience requirements. The holder of a ground instructor certificate shall not exercise the privileges thereunder unless during the preceding twelve calendar months he has:

"(1) Served for at least three months as a ground school instructor, or

"(2) Demonstrated to the satisfaction of the Administrator that he is able to meet the standards currently prescribed by the Civil Air Regulations for the issuance of the certificate and rating."

3. Add a new section 51.230 to read as follows:

"51.230 Reports. The holder of a ground instructor certificate shall transmit to the Administrator, annually, during the month of January, a report for the preceding twelve month period, setting forth the amount and type of his aeronautical experience and such other pertinent data as the Administrator may require."

4. Amend section 51.24 to read as follows:

"51.24 Expired certificates; special issuance. The holder of a ground instructor

certificate which has expired within the preceding twelve months may obtain a new certificate and the same rating theretofore held immediately prior to its expiration, upon application, by demonstrating to the satisfaction of the Administrator that he is able to meet the standards currently prescribed by the Civil Air Regulations for the issuance of the certificate and rating."

5. Amend the table of contents to conform to items 2 and 4 of this amendment.

6. Add to the table of contents in the proper numerical order the following:

"51.28 Revocation."

"51.29 Ground instructor identification card."

AMENDMENT 60-3-----June 12, 1942

Effective June 18, 1942:

Part 60 of the Civil Air Regulations is amended as follows:

1. Add at the end of section 60.971 the following:

"Provided, That the provisions of this section shall not apply in any instance where, and to the extent that, the Administrator (a) has found that the proposed deviation is necessary for the successful prosecution of the war, and (b) has issued a certificate of waiver therefor."

2. Add at the end of section 60.972 the following:

"Provided, That the provisions of section 60.91 shall not apply to this section insofar as it relates to scheduled air carrier operation."

AMENDMENT 60-4-----June 12, 1942

Effective June 18, 1942:

Part 60 of the Civil Air Regulations is amended as follows:

Strike subparagraphs (c) and (d) of section 60.973 and insert in lieu thereof the following:

"(c) such explosives have been placed in a baggage compartment inaccessible to passengers during flight; and

"(d) such explosives and other cargo carried in the same compartment have been firmly lashed to the aircraft structure or otherwise secured in such manner as to prevent shifting in flight."

AMENDMENT 60-5-----June 12, 1942

Effective June 18, 1942:

Part 60 of the Civil Air Regulations is amended as follows:

Add a new section 60.974 to read as follows:

"60.974 Effect of lack of knowledge. No person shall be held to have violated the provisions of this section (60.97) in any case where he can show: (a) that he did not know the nature of the article so carried, (b) that the nature of such article could not be discovered by the exercise of reasonable care, and (c) that he exercised such reasonable care."

REGULATION 229-----July 3, 1942

AMENDMENT No. 1 of SECTION 239.1 OF THE ECONOMIC REGULATIONS—CHARTER TRIPS AND SPECIAL SERVICES BY AIR CARRIERS HOLDING CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

Effective July 10, 1942, Section 239.1 of the Economic Regulations is hereby amended in its entirety to read as follows:

"(a) Approval required for special service. No air carrier holding a certificate of public convenience and necessity shall operate any charter trip or other special service (except flights originating and terminating in the territory comprised of Mexico, Central America, South America, and the countries and islands in the Caribbean area) either between points named in its certificate or otherwise, unless it shall have first secured approval thereof by the Military Director of Civil Aviation or his designee, or unless authorized by such further regulations as the Board may from time to time promulgate.

"(b) Reports required for flights originating and terminating in Mexico, Central America, South America, and the Caribbean area. Each charter trip or other special service originating and terminating in the territory comprised of Mexico, Central Amer-

ica, South America, and the countries and islands in the Caribbean area shall be reported to the Civil Aeronautics Board on or before the tenth day of the month following the date of its termination. The report shall contain the following information with respect to each flight:

- "1. The date.
- "2. The points served.
- "3. The number of miles flown (including the return flight).
- "4. The time required (including the time for return flight).
- "5. The aircraft equipment employed.
- "6. The purpose of the flight including the name of persons requesting the flight and a description of the cargo and passengers carried.
- "7. A statement indicating to what extent the flight interfered with scheduled operations of the air carrier."

REGULATION 230-----July 3, 1942

SECTION 280.2—REPORTS OF STOCK OWNERSHIP OF AFFILIATES OF AIR CARRIERS

(a) *Definition of Affiliate of Air Carrier.* For the purposes of this section a person shall be deemed to be an affiliate of an air carrier if it has direct or indirect control over such air carrier, or if it has the power to exercise control over such air carrier.

(b) *Stock Reports by Affiliates.* Except as provided in paragraph (c), every affiliate of an air carrier shall submit on or before January 25 of each year:

(1) A report showing, as of the preceding December 31,

(i) The names and addresses of each of its stockholders or members holding more than 5 per centum of the entire capital stock or capital, as the case may be, of such affiliate, together with the name and address of any person for whose account, if other than the holder, such stock is held,

(ii) The number of shares, and percentage of the total shares issued, held by each such stockholder, and indicating whether such shares are voting, non-voting, common, or preferred; and

(2) A report setting forth, as of the preceding December 31, a description of the shares of stock or other interests held by the affiliate, or for its account, in any common carrier, air carrier, foreign air carrier, or any person engaged in any phase of aeronautics, and a description of the shares of stock or other interests held by the affiliate, or for its account, in any person whose principal business, in purpose or in fact, is the holding of stock in, or control of, common carriers, air carriers, foreign air carriers, or persons engaged in any phase of aeronautics, indicating:

(i) The name of the issuing company.

(ii) Whether such stock or other interest is voting, non-voting, common or preferred, convertible or non-convertible (if convertible an explanation of the option shall be set forth).

(iii) The par and book value of such stock or other interests held by the affiliate or for its account, and the amount pledged, unpledged, and held in fund and deposit accounts, and

(iv) The total amount of stock or other interests (by class and issue) having voting or conversion rights, which have been actually issued by the issuing company and are outstanding (whether or not held by the affiliate reporting hereunder). If convertible, an explanation of the option shall be set forth, and the total amount convertible shall be stated.

(c) *Exception for Air Carriers.* The reports required in paragraph (b) need not be filed as of December 31 of any year by any such affiliate if it is an air carrier required to file a report, as of December 31 of the same year, pursuant to section 407 (b) of the Act.

(d) *Effective Date.* This regulation shall become effective on the 3d day of August 1942.

REGULATION No. 231-----July 11, 1942

Effective July 11, 1942:

Notwithstanding any provisions of the Civil Air Regulations to the contrary, any Naval Aviator who is a graduate of the special course in the operation of Douglas DC-3 aircraft given at the Naval Training School, Fort Worth, Tex., may be issued a valid commercial pilot certificate and appropriate rating for the operation of Douglas DC-3 aircraft, and any such graduate who is also possessed of a Navy Qualified Instrument Rating may be issued the instrument rating prescribed by the Civil Air Regulations.

REGULATION No. 232-----July 13, 1942

Effective July 13, 1942:

Notwithstanding any provisions of the Civil Air Regulations to the contrary, any Naval Aviator of the Navy or Marine Corps, possessed of an appropriate and valid commercial pilot certificate or airline transport pilot certificate, who is assigned to duty for training with an air carrier, may be used by the air carrier to which he is assigned as an additional member of the flight crew of aircraft engaged in scheduled air transportation and, at the discretion of the first pilot, such Naval Aviator may manipulate the controls of such aircraft: *Provided*, That no such Naval Aviator, possessing only a commercial pilot certificate, shall manipulate the controls of such aircraft during operations under instrument conditions unless he is also possessed of a valid instrument rating issued by the Administrator.

REGULATION 233-----July 17, 1942

Effective July 21, 1942.

Notwithstanding any provisions of the Civil Air Regulations to the contrary, the Administrator may in his discretion, and under such conditions as he may prescribe, permit an air carrier, when engaged in overseas or foreign air transportation, to exceed the gross weight limitations now specified in its air carrier operating certificate and in the airworthiness certificates of its aircraft: *Provided*, (1) That the entire load thus carried consists only of cargo, mail, and passengers necessary to the prosecution of the war effort, or the preservation of life; (2) That the pilot in command of the aircraft certifies that in his opinion, notwithstanding the transgression of the gross weight limitations, the flight can be completed without undue risk; and (3) That prior to departure each passenger shall have been personally notified that the gross weight of the aircraft exceeds the gross weight limitations, in order that he may have the opportunity to leave the aircraft before departure."

REGULATION No. 234-----July 27, 1942

AMENDMENT No. 2 TO SECTION 202.1 OF THE ECONOMIC REGULATIONS—FORMS OF MONTHLY REPORTS OF FINANCIAL AND OPERATING STATISTICS

1. Part (b) of Section 202.1 of the Economic Regulations is hereby amended to read as follows:

"(b) Each other air carrier engaged in regularly scheduled air transportation (not including, however, foreign air carriers) shall make its reports with respect to such matters in accordance with the provisions of the Monthly Report—Financial and Operating Statistics (Form No. 2380) heretofore issued by the Post Office Department, and such report form is hereby adopted by the Board for such purposes until further action by the Board; *Provided*, however, that any such air carrier may request the approval of the Board to make such reports in accordance with the provisions of the Monthly Report—Financial and Operating Statistics of Domestic Air Carriers, dated January 1, 1942, C. A. B. Form 2780 and the amendments thereto, and upon obtaining the approval of the Board shall thereafter make its reports in the manner therein prescribed. Whenever Form No. 2380 refers to the Postmaster General, any Assistant Postmaster General, the United States Post Office Department, or any division or section thereof, they shall hereafter be deemed to refer to the Civil Aeronautics Board."

2. This amendment shall become effective August 1, 1942.

REGULATION No. 235-----July 27, 1942

AMENDMENT No. 2 TO SECTION 202.2 OF THE ECONOMIC REGULATIONS—FORM OF ACCOUNTS OF AIR CARRIERS

1. Part (b) of Section 202.2 of the Economic Regulations is hereby amended to read as follows:

"(b) Each other air carrier engaged in regularly scheduled air transportation (not including, however, foreign air carriers) shall keep its accounts, records, and memoranda with respect to such transactions in accordance with the provisions of a so-called 'Uniform System of Accounts for Foreign Carriers by Air' which was heretofore issued by the Post Office Department and such Uniform System of Accounts is hereby adopted by the Board for such purposes until further action by the Board; *Provided*, however, that any such air carrier may request the approval of the Board to keep its accounts, records, and memoranda, in accordance with the Uniform System of Accounts for Domestic Air Carriers issued by the Civil Aeronautics Board, dated January 1, 1942, and the amendments thereto, and upon obtaining approval of the Board shall keep its accounts, records, and memoranda in the manner therein prescribed. Wherever such Uniform System of Accounts for Foreign Carriers by Air refers to the Postmaster General, any Assistant Postmaster General, the United States Post Office Department, or any division thereof, they shall hereafter be deemed to refer to the Civil Aeronautics Board."

2. This amendment shall become effective August 1, 1942.

ACCIDENTS

(Cont. from page 156)

Steep Take-off Climb Ends in Stall, Spin

William Dobins Cash and his passenger, Deward Royce Carr, were seriously injured in an accident which occurred at Reverie, Tenn., on February 8, 1942. Cash held a student pilot certificate, and estimated his flying time at 400 hours. The airplane, a Piper Cub J-2, received major damage.

Flying from the front seat, Cash took off with Carr as passenger for a local pleasure flight from a private landing strip at Reverie, Tenn., on Island No. 35 in the Mississippi River, about 45 miles north of Memphis. The take-off was made toward the north into a northeast wind of about 10 m. p. h. and was immediately followed by a steep climb. From the statements of witnesses it is apparent that after attaining an altitude of approximately 50 feet, the plane was stalled, fell off to the right, and made a turn of about 180 degrees in a spin before striking the ground approximately 900 feet from the point where the take-off was started.

Subsequent investigation disclosed that neither the pilot's log book nor the aircraft or engine log books had been kept current. The aircraft airworthiness certificate had expired on December 19, 1941. Cash did not remember the details of the flight and the passenger's memories were vague.

Probable cause.—Action of pilot in climbing aircraft too steeply immediately following take-off.

Status of Air Regulations

As of August 1, 1942

All persons affected by these Regulations, including those preparing for examinations for certificates may obtain required Parts of the Regulations from the Publications and Statistics Division, Civil Aeronautics Administration, Washington, D. C., without charge.

ONLY PARTS NEEDED SUPPLIED FREE

For example, pilots are governed in general by Parts 01., 20., 60., and 98.; aircraft mechanics by Parts 01., 04., 15., 18., 24., 98., and Section 60.32; and aircraft engine mechanics by Parts 01., 04., 13., 14., 18., 24., and 98. It should be remembered that individuals are entitled to receive free of charge only those portions of the Regulations which directly govern the activity in which they are engaged and this activity must be definitely stated when request is made.

HOW TO OBTAIN PARTS, AMENDMENTS, AND MANUALS

Those persons not affected by the Regulations, but desiring all or any part of the Regulations for other

purposes, may obtain them as follows: Those Parts on which a price is listed in the tabulation below are on sale by the Superintendent of Documents, U. S. Government Printing Office (shown as G. P. O. in table), Washington, D. C., and are not available for free distribution except as stated in the first paragraph.

Eventually, all Parts will be placed on sale; meanwhile, Parts not yet on sale (carrying remark in tabulation below "order from C. A. A. only" (may be obtained without charge from the C. A. A. upon demonstration of valid interest on the applicant's part.

ALL AMENDMENTS TO THE REGULATIONS, AND NOTICE OF NEW PARTS, ARE PRINTED IN THE CIVIL AERONAUTICS JOURNAL, AS RELEASED.

The tabulation below carries in the right-hand column the numbers of all effective amendments to each Part issued subsequent to its publication. Parts ordered from C. A. A. include all effective

amendments, but when Parts are purchased from G. P. O. amendments must be requested separately from C. A. A.

Civil Aeronautics Manuals supplementing certain Parts with detailed interpretations of their respective provisions are issued. They are numbered the same as the Parts they supplement, and those Parts accompanied by Manuals carry appropriate notations. All Manuals are obtained from C. A. A. only, without charge.

PARTS CANCELLED AND UNASSIGNED

Cancelled Parts 00. and 03. now incorporated in Part 01.; cancelled Part 23, now incorporated in Part 51.; and cancelled Part 25, now incorporated in Part 24. Parts 90.-96., inclusive, cancelled. All other Part numbers not shown are unassigned.

Bound volumes of the complete Civil Air Regulations are no longer available. Parts and amendments are punched for filing in loose-leaf binders.

Civil Air Regulations

PART No.	TITLE	DATE	REMARKS	PRICE	EFFECTIVE AMENDMENTS
01	AIRWORTHINESS CERTIFICATES.....	11-1-41	In stock at C. A. A. and on sale at G. P. O.....	\$0.05	01-1,* 01-2, Spec. 01-3, Reg. Ser. 223.
02	TYPE AND PRODUCTION CERTIFICATES.....	3-1-41	In stock at C. A. A. and on sale at G. P. O.....	.05	
04	AIRPLANE AIRWORTHINESS (MANUAL 04, 2-1-41, OUT OF STOCK).	4-1-41	In stock at C. A. A. and on sale at G. P. O.....	.15	116, 120, 04-3 thru 04-8, 04-9,* 04-10,* 04-11 thru 04-14.
13	AIRCRAFT ENGINE AIRWORTHINESS (MANUAL NOT ISSUED).	8-1-41	In stock at C. A. A. and on sale at G. P. O.....	.05	
14	AIRCRAFT PROPELLER AIRWORTHINESS (MANUAL 12-1-38).	11-15-40	Out of stock; to be available from C. A. A. and on sale at G. P. O.....		14-1.
15	AIRCRAFT EQUIPMENT AIRWORTHINESS (MANUAL 15, OUT OF STOCK).	11-15-40	In stock; order from C. A. A. only.....		15-1,* 15-2.
16	AIRCRAFT RADIO EQUIPMENT AIRWORTHINESS (MANUAL, 2-13-41).	2-13-41	In stock at C. A. A. and on sale at G. P. O.....	.05	
18	MAINTENANCE, REPAIR, AND ALTERATION OF CERTIFICATED AIRCRAFT AND OF AIRCRAFT ENGINES, PROPELLERS, AND INSTRUMENTS. (MANUAL 18, 6-1-41, OUT OF STOCK).	6-1-41	In stock; order from C. A. A. only.....		
20	PILOT CERTIFICATES.....	5-1-40	In stock at C. A. A. and on sale at G. P. O.....	.05	63, 65, 75, 87, 99, 101, 107, 110, 111, 112, 115, 117, 118, 125, 127, 20-24 thru 20-50, 87, 101, 115, 21-4, 21-5 thru 21-7.
21	AIRPLANE TRANSPORT PILOT RATING.....	11-15-40	In stock; order from C. A. A. only.....		22-1 thru 22-5.
22	LIGHTER-THAN-AIR-PILOT CERTIFICATES.....	9-15-41	In stock at C. A. A. and on sale at G. P. O.....	.10	44, 61, 75, 75, 87, 109, 24-7, 24-8,* 24-9, 24-10.
24	MECHANIC CERTIFICATES.....	5-1-40	In stock at C. A. A. and on sale at G. P. O.....	.05	26-1,* 26-2 thru 26-4.
26	AIR-TRAFFIC CONTROL TOWER OPERATOR CERTIFICATES.....	2-3-42	To be available soon at C. A. A. and on sale at G. P. O.....		
27	AIRCRAFT DISPATCHER CERTIFICATES.....	7-15-40	In stock at C. A. A. and on sale at G. P. O.....	.05	74, 75, 87, 27-5, 27-6,* 27-7, 27-8.
29	PHYSICAL STANDARDS FOR PILOTS.....	6-1-42	To be available at G. P. O. only.....		
40	AIR CARRIER OPERATING CERTIFICATION.....	11-1-40	In stock at C. A. A. and on sale at G. P. O.....	.05	85, 89, 102, 129, 133, 40-6, 40-7, 40-8 thru 40-10.
50	FLYING SCHOOL RATING (MANUAL 50, 12-40 9).....	11-1-40	In stock at C. A. A. and on sale at G. P. O.....	.05	87, 113, 50-3, Reg. Ser. 216.*
51	GROUND INSTRUCTOR RATING.....	5-1-40	In stock at C. A. A. and on sale at G. P. O.....	.05	75, 87, 128, 51-4, 51-5,* 51-6, 51-7.
52	REPAIR STATION RATING (MANUAL 52, 2-41).....	5-1-40	In stock at C. A. A. and on sale at G. P. O.....	.05	75, 84, 87.
53	MECHANIC SCHOOL RATING (MANUAL 53, 5-40).....	9-15-40	In stock at C. A. A. and on sale at G. P. O.....	.05	75, 87, 53-3.
60	AIR TRAFFIC RULES (MANUAL 60; PART 1, 12-1-40; PART 2, 8-1-40; PART 3, 12-1-40).....	10-4-40	In stock at C. A. A. and on sale at G. P. O.....	.10	80, 90, 93, 102, 104, 119, 120, 121, 127, 135, 60-25 thru 60-44, 60-44 thru 60-48, 60-50 thru 60-58, 60-59,* 60-60,* 60-61 thru 60-68, Spec. Reg. Ser. 177.
61	SCHEDULED AIR CARRIER RULES.....	1-1-41	In stock at C. A. A. and on sale at G. P. O.....	.05	91, 94, 97, 102, 115, 120, 122, 120, 130, 132, 134, 61-17, thru 71-19, 61-20,* 61-21 thru 61-32, 61-34, Spec. Reg. Ser. 182, 188, 192.
66	FOREIGN AIR CARRIER REGULATIONS.....	* 1-15-42	In stock at C. A. A. and on sale at G. P. O.....	.05	
98	DEFINITIONS.....	11-15-40	In stock; order from C. A. A. only.....		98-1.
99	MODE OF CITATION OF REGULATIONS.....	11-15-40	In stock; order from C. A. A. only.....		

Regulations of the Administrator

501	AIRCRAFT REGISTRATION CERTIFICATES.....	11-1-41	In stock, order from C. A. A. only.....		
510	GENERAL REGULATIONS, WASHINGTON NATIONAL AIRPORT.	9-26-41	In stock; order from C. A. A. only.....		
511	GENERAL AERONAUTICAL RULES FOR THE WASHINGTON NATIONAL AIRPORT.	9-26-41	In stock; order from C. A. A. only.....		
525	NOTICE OF CONSTRUCTION OR ALTERATION OF STRUCTURES ON OR NEAR CIVIL AIRWAYS.	11-1-41	In stock; order from C. A. A. only.....		
531	SEIZURE OF AIRCRAFT.....	12 8-41	In stock; order from C. A. A. only.....		1 thru 5.
600	DESIGNATION OF CIVIL AIRWAYS.....	3-1-42	Not published (See Air Navig. Radio Aids).....		1 thru 9.
601	DESIGNATION OF AIRWAY TRAFFIC CONTROL AREAS, ETC.	1-15-42	Not published (See Air Navig. Radio aids).....		

* Amendments issued as C. & I. Release No. 50, 6-3-41, and S. R. Release No. 97, 2-23-41 (out of stock).

* Amendment No. 1 issued as S. R. Release No. 62, 8-12-41.

* Amendment 4-14-41 issued as S. R. Release No. 77, 11-13-41.

* Effective date postponed until 11-1-42 by Order No. 1818.

* Effective 5-15-42 (No copies available. Requires identification cards. Consult C. A. A. inspector for specific provisions of this amendment.)

* No copies available (waiver of requirements). Consult C. A. A. inspector for specific provisions of this amendment.



